I claim:

1. A composition comprising an immune effector cell and a cell penetrating peptide, wherein said cell penetrating peptide is associated with an antigen.

2. The composition of claim 1, wherein the antigen is a tumor rejection antigen or tumor associated antigen.

3. The composition of claim 1, wherein the antigen is a molecule comprising multiple T-cell peptides.

4. The composition of claim 3, wherein the multiple T-cell peptides are from either the same tumor antigen or different tumor antigens.

5. The composition of claim 1, wherein the antigen comprises at least one MHC class I-restricted peptide, at least one MHC class II-restricted peptide, or at least one MHC class I-restricted peptide and at least one MHC class II-restricted peptide.

6. The composition of claim 1, wherein the immune effector cell is a mature dendritic cell, a B cell, a macrophage, or a fibroblast.

7. The composition of claim 1, wherein the immune effector cell is a mature dendritic cell or a B cell.

8. The composition of claim 1, wherein the immune effector cell is a mature dendritic cell.

9. The composition of claim 1, wherein the antigen is a tumor antigen.

10. The composition of claim 9, wherein the tumor antigen is a peptide.

11. The composition of claim 9, wherein the tumor antigen is TRP2.

12. The composition of claim 9, wherein the tumor antigen is one from Table 1, Table 2, Table 3, Table 4, or Table 5.

13. The composition of claim 1, wherein the cell penetrating peptide is CPP1, ANTP, Signal-peptide I, Signal-peptide II, PRES, Transportan, Amphiphilic model peptide, HSV VP22, peptide carrier, or CL22.

14. The composition of claim 1, wherein the cell penetrating peptide is CPP1.

15. The composition of claim 1, wherein the association of the cell penetration peptide with the antigen is a covalent bond.

16. The composition of claim 1, wherein the antigen is housed within a vesicle in said immune system cell.

17. The composition of claim 16, wherein the vesicle is an endosome.

18. A composition comprising an immune effector cell and a cell penetrating peptide, wherein said cell penetrating peptide is associated with an antibody.

19. A vaccine comprising:

an immune effector cell and a cell penetrating peptide, wherein said cell penetrating peptide is associated with an antigen; and

a pharmaceutically acceptable carrier.

20. The vaccine of claim 19, wherein the immune effector cell is a mature dendritic cell, a B cell, a macrophage, or a fibroblast.

21. The vaccine of claim 19, wherein the immune effector cell is a mature dendritic cell or a B cell.

22. The vaccine of claim 19, wherein the immune effector cell is a mature dendritic cell.

23. A method of enhancing immunity in an animal to a disease, comprising the step of administering to the animal a mature dendritic cell, wherein the cell comprises a cell penetrating peptide associated with an antigen to said disease, wherein following said administration, said animal is protected from said disease.

24. The method of claim 23, wherein said animal comprises both CD4+ and CD8+ T cells.

25. The method of claim 23, wherein said dendritic cell is administered to the animal by injection.

26. The method of claim 25, wherein said injection is intravenously, intraperitoneally, or subcutaneously.

27. The method of claim 23, wherein the animal is a mammal.

28. The method of claim 27, wherein the mammal is a human.

29. A method of immunizing an animal, comprising administering the vaccine of claim 18 at least once to said animal.

30. A method of treating a disease in an animal, comprising the step of administering to the animal:

an immune effector cell comprising a cell-penetrating peptide associated with an antigen for said disease; and

a pharmaceutically acceptable carrier.

31. The method of claim 30, wherein the immune effector cell is a mature dendritic cell, a B cell, a macrophage, or a fibroblast.

32. The method of claim 30, wherein the immune effector cell is a mature dendritic cell or a B cell.

33. The method of claim 30, wherein the immune effector cell is a mature dendritic cell.

34. The method of claim 30, wherein the cell penetrating peptide is CPP1, HIV Tat, VP22, MTS, or fibroblast growth factor.

35. The method of claim 30, wherein the cell-penetrating peptide is CPP1.

36. The method of claim 30, wherein the disease is cancer and wherein the antigen is a tumor antigen.

37. The method of claim 36, wherein the tumor antigen is TRP2.

38. The method of claim 36, wherein the tumor antigen is one from Table 1, Table 2, Table 3, Table 4, or Table 5.

39. The method of claim 30, wherein the animal is further subjected to a cancer treatment, wherein the treatment is surgery, radiation, chemotherapy, or gene therapy.

40. The method of claim 39 wherein the administration of the dendritic cell is prior to the cancer treatment.

41. The method of claim 39, wherein the administration of the dendritic cell is subsequent to the cancer treatment.

42. The method of claim 39, wherein the administration of the dendritic cell is concurrent with the cancer treatment.

43. A method of preparing a composition for a disease, comprising:

providing an immune effector cell;

providing a cell penetrating peptide associated with an antigen for said disease; and

introducing the cell penetrating peptide associated with the antigen to the immune effector cell, wherein said antigen enters into the cell.

44. The method of claim 43, wherein the immune effector cell is a mature dendritic cell, B cell, a macrophage, or a fibroblast.

45. The method of claim 43, wherein the immune effector cell is a mature dendritic cell.

46. The method of claim 43, wherein the antigen is a tumor antigen, autoantigen, or viral antigen.